

What is claimed is:

1. A process for ketalizing triacetoneamine, which comprises reacting triacetoneamine and a hydroxyl derivative having one or more hydroxyl groups with gaseous hydrogen chlorides
5 to yield the open-chain or cyclic triacetoneamine.
2. The process as claimed in claim 1, wherein the reacting is carried out in the presence of a solvent.
- 10 3. The process as claimed in claim 2, wherein the solvent is an acyclic hydrocarbon, a cyclic hydrocarbon, or an aromatic hydrocarbon.
4. The process as claimed in claim 2, wherein the solvent is heptane, cyclohexane, ethylcyclohexane, toluene or xylene.
- 15 5. The process as claimed in claim 1, wherein the reacting is carried out at from 20°C to 150°C.
6. The process as claimed in claim 1, wherein the reacting is carried out at from 50°C to
20 90°C.
7. The process as claimed in claim 1, wherein the reacting forms water which is removed from the reaction mixture.
- 25 8. The process as claimed in claim 1, wherein triacetoneamine and a hydroxyl derivative having one hydroxyl group are in a ratio of 1:2-8.

9. The process as claimed in claim 1, wherein triacetoneamine and a hydroxyl derivative having one hydroxyl group are in a ratio of 1:2–4.

5 10. The process as claimed in claim 1, wherein the hydroxyl derivative has at least two hydroxyl groups.

11. The process as claimed in claim 10, wherein the triacetoneamine and a hydroxyl derivative having at least two hydroxyl groups are in a ratio of 1:1–4.

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12. The process as claimed in claim 10, wherein the triacetoneamine and a hydroxyl derivative having at least two hydroxyl groups are in a ratio of 1:1–2.

13. The process as claimed in claim 1, wherein the hydroxyl derivatives are monohydric or
15 polyhydric alcohols.

14. The process as claimed in claim 13, wherein the hydroxyl derivative is ethylene glycol or glycerol.

20 15. The process as claimed in claim 1, which further comprises adding superstoichiometric amounts of hydrogen chloride.

16. The process as claimed in claim 15, wherein the reacting is carried out batchwise, and the gaseous hydrogen chloride is added subsequently.

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17. The process as claimed in claim 1, which further comprises neutralizing the reaction with an alkali metal alkoxide or alkaline earth metal alkoxide.

18. The process as claimed in claim 17, wherein the reaction mixture is neutralized with a powder or alcoholic form of sodium methoxide, sodium ethoxide, potassium methoxide or potassium ethoxide.

19. The process as claimed in claim 1, wherein the reaction is carried out continuously.

20. A process for producing a polymer, comprising ketalizing triacetoneamine according to the process of claim 1, and adding the open-chain or cyclic triacetoneamine to a polymerization reaction.